

Small NEPA Soils Report

Project Name: Max#2

Ranger District: Salmon

General Project Description: 10 test pits will be excavated and examined with sluice box, pans, and hand tools for mineral content. Excavated material will be used to refill test pits. Water will be pumped from Ozark Creek. Disturbed areas will be reseeded.

The following guidance for soil management includes Forest, Regional and National level Standards, and indicates how the proposal is consistent with each standard.

The Nez Perce National Forest Plan provides guidance for minerals management, “Mineral resource activities will be administered under the appropriate laws and regulations to insure protection of surface resources.....Reclamation of disturbed areas to a productive condition will be required in all cases.”

The Plan provides guidance for soil management, which states “Soil productivity will be maintained and soil erosion will be minimized through the application of best management practices”.

The Clearwater National Forest Plan provides guidance for minerals management, “Provide for access to and the orderly exploration, development, and production of minerals and energy resources, while meeting Forest Plan direction for other resources.”

The Plan provides guidance for soil management, to “[e]nsure that soil productivity is maintained and no irreversible damage occurs to soil and water resources from Forest management activities”.

In accordance with PACFISH and INFISH for Key Watersheds, the area from the edges of the stream channel, wetland, landslide, or landslide-prone area to a distance equal to the height of one site potential tree, or 100 feet slope distance, whichever is greatest is determined to be an RHCA. Management direction includes “Best management practices shall be applied to all land-disturbing activities, including prevention of soil erosion during land management activities.”

Northern Region Soil Quality Standards were developed “[t]o meet direction in the National Forest Management Act of 1976 and other legal mandates [and t]o manage National Forest System lands under ecosystem management principles without permanent impairment of land productivity and to maintain or improve soil quality.”

FSM 2532 directs the use of best management practices (BMPs) to be promoted and applied to all management activities as the method for control of nonpoint sources of water pollution to achieve established State or national water quality goals. National BMPs can be found in National Best Management Practices for Water Quality Management on National Forest System Lands (USDA FS Publication FS990a). State BMPs can be found in the Best Management Practices for Mining in Idaho (Idaho Department of Lands 1992).

Forest Plan Consistency

Nez Perce NF Forest Plan Standards	Consistency (only projects on NPNF)
Evaluate the potential for soil displacement, compaction, puddling, mass wasting, and surface soil erosion for all ground-disturbing activities.	Soil and Water BMPs will be used for any ground disturbing activities. Soil and Water BMPs can be found in the National Best Management Practices for Water Quality Management on National Forest System Lands (USDA FS Publication FS990a) and Best Management Practices for Mining in Idaho (Idaho Department of Lands 1992)
A minimum of 80 percent of an activity area shall not be detrimentally compacted, displaced, or puddled upon completion of activities. This direction does not apply to permanent recreation facilities and other permanent facilities such as system roads.	"Mitigation Measures for Placer Exploration" lists Mining BMPs for all surface disturbing activities, reclamation, and abandonment.
Maintain sufficient ground cover to minimize rill erosion and sloughing on road cut and fill slopes and sheet erosion on other activity areas.	Soil and Water BMPs will be used for any ground disturbing activities.

Clearwater NF Forest Plan Standards	Consistency (only projects on CWNF)
Manage activities on lands with ash caps such that bulk densities on at least 85 percent of the area remain at or below 0.9 gram/cubic centimeter.	NA
Design resource management activities to maintain soil productivity and minimize erosion.	NA
<p>The minimum coordinating requirements for projects on land types with high or very high mass stability or parent material erosion hazard ratings are:</p> <p>(1) The field verification of the mapped unit and predicted hazard rating.</p> <p>(2) Review road locations using a team consisting of a engineering geologist, hydrologist, soil scientist, and a silviculturist.</p> <p>Assess concerns and possible mitigation measures to determine if a geotechnical investigation is needed.</p> <p>(3) After the "P" line has been located, stake mitigating road designs, using the original ID team members and road designer.</p>	NA
Review silvicultural prescriptions and	NA

unit locations on land type 50 (old slumps) to determine whether vegetation removal (timber harvesting) may contribute to slope instability.	
Give special attention to compacted glacial tills in the Powell area. When projects are proposed in areas where compacted tills are known to occur or suspected to occur, an intensive soil map will be prepared and ground verified. Mitigation measures should be applied that will assure that water tables will not be raised or that subsurface water will not be converted to surface flows. Measures will also be applied to assure that soil erosion and resulting lowering of soil productivity will not occur.	NA

PACFISH/INFISH - Landslide Prone/Wetlands	Consistency (all projects)
If the project affects landslide prone lands or wetlands, how are PACFISH/INFISH requirements being met by the project?	Some of the test pits may be within the Ozark Creek riparian zone. A 100-foot buffer cannot be applied. A bond is required and reclamation in accordance with PACFISH will be followed.

Regional Soil Quality Standards	Consistency (all projects)
Do the Regional Standards apply (why or why not) and if so how are they being met by the project? Address DSD and CWD.	Soil quality standards apply to lands where vegetation and water resource management are the principal objectives. The standards do not apply to intensively developed sites such as mines, quarries, etc. Disturbance will occur, but must be confined to the work area. Standards and guidelines apply to the off-site impacts and will be met with Soil and Water BMPs. Lands should be reclaimed to meet soil productivity goals of the site.

Additional Notes and Analysis:

This project area is mapped as soil map unit 22A6Q--Andic Cryochrepts-Cryaquepts complex, low relief rolling uplands, weathered granitic substratum. The soil has a volcanic ash-influenced surface layer 7- to 18-inches thick. Typically, the surface layer is sandy loam 13 inches thick. The subsoil is sandy loam about 5 inches thick. The upper substratum is gravelly loamy sand about 22 inches thick and the lower substratum to a depth of 60 inches or more is well weathered granitic bedrock.

Approximately, 6,750 square feet within the project area has been disturbed by prior placer mining operations. These disturbed areas have no evidence of surface layers or volcanic ash-influence loess and

gravelly loamy sand is exposed at the surface. For most soil functions (biologic, nutrient cycling, physical support, and hydrologic), the function rating is “impaired”. The thermodynamic soil function is “affected, but not impaired” as there is adequate overstory species on the disturbed area.

On the undisturbed Andic Cryochrepts, all soil functions are “functioning properly”.

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